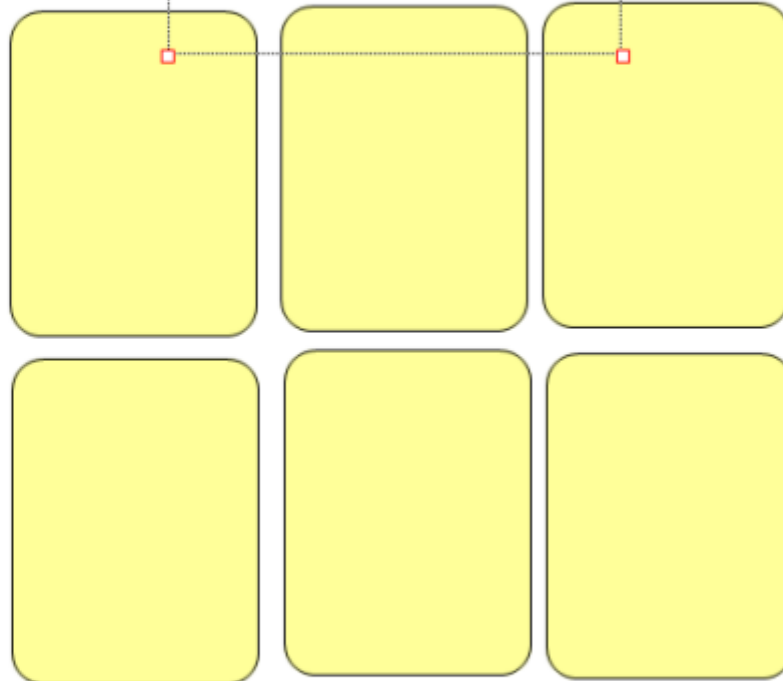
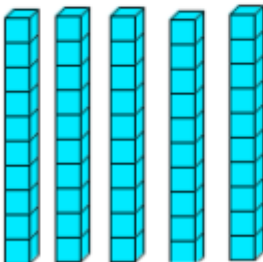
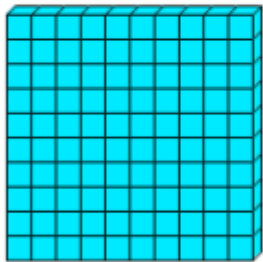
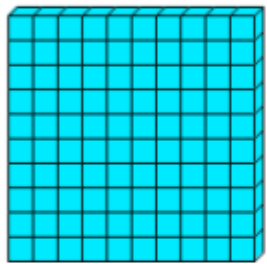


Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 =$$



$$6 \overline{) 252}$$

6 groups

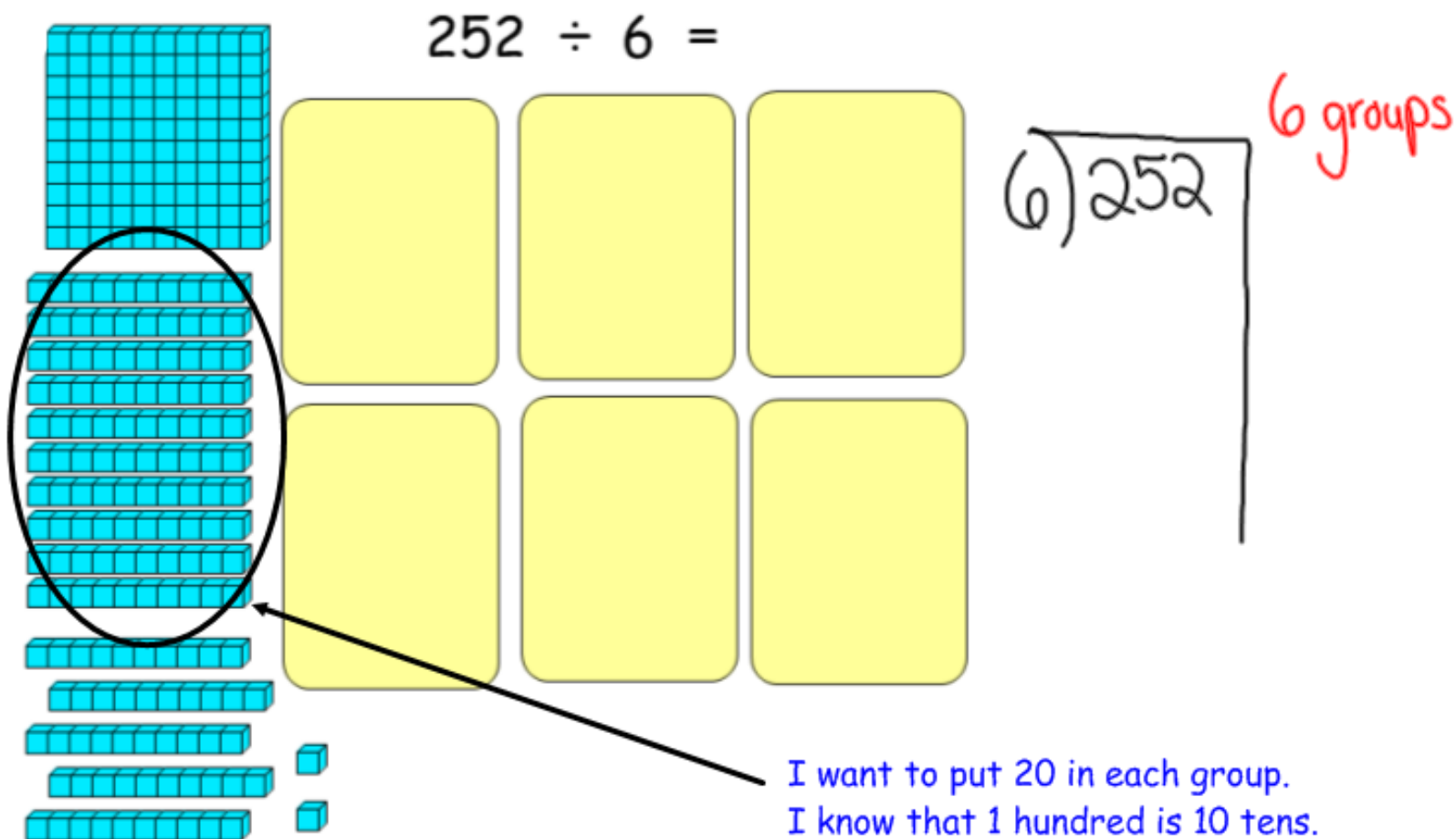
I share 252 equally
into 6 groups.

Effective strategy

(May get correct answer but will take longer)

Learning Goal: Dividing larger numbers effectively versus efficiently

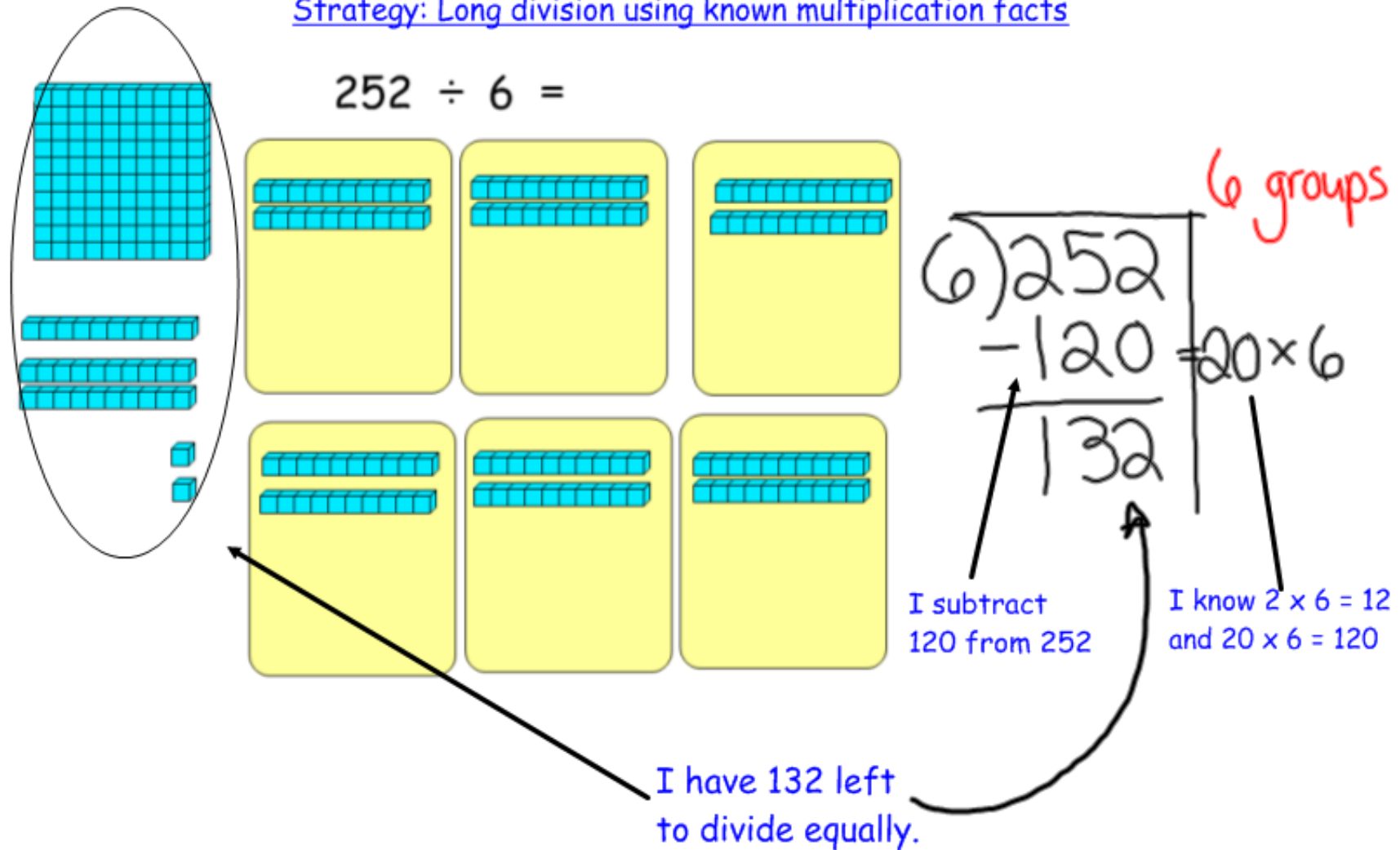
Strategy: Long division using known multiplication facts



Effective strategy
(May get correct answer but will take longer)

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

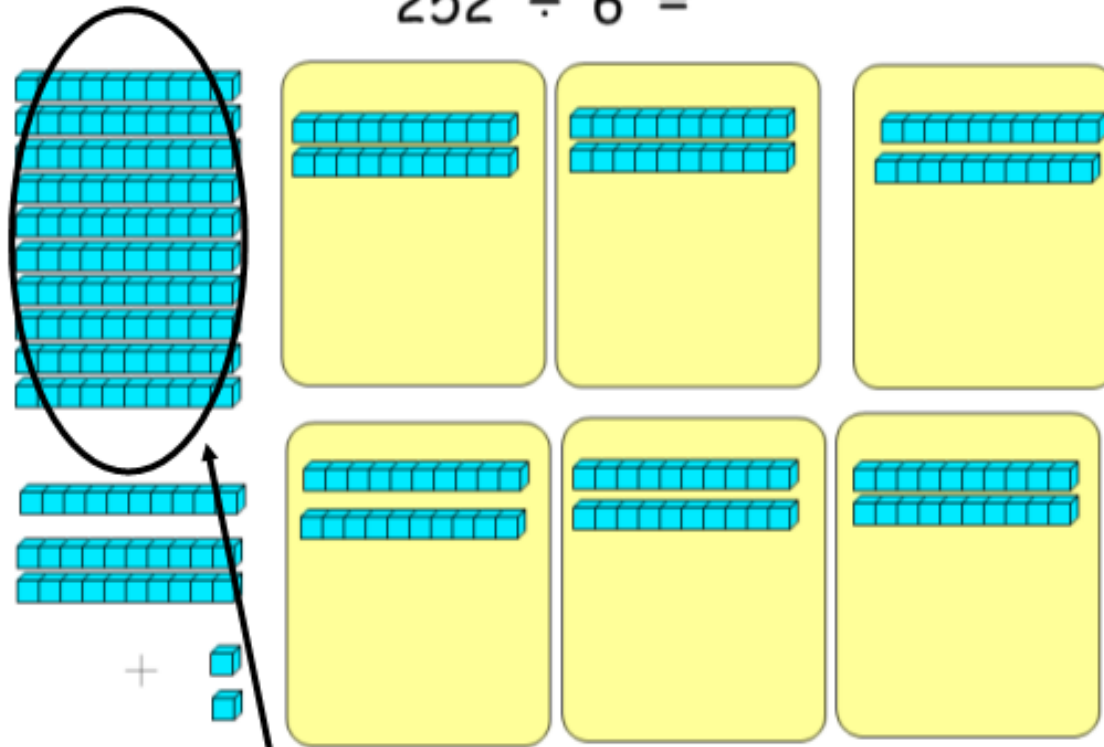


Effective strategy
(May get correct answer but will take longer)

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 =$$



I break up the other hundred into 10 tens.

Effective strategy

(May get correct answer but will take longer)

Handwritten long division of 252 by 6. The division is written as $6 \overline{)252}$. The first step shows $252 - 120 = 132$, with the note 20×6 to the right. The second step shows $132 - 120 = 12$, with the note 20×6 to the right. A red note "6 groups" is written above the division. An arrow points from the text box below to the second subtraction step.

I know I can put another 20 in each group.

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 =$$

6 groups

$$\begin{array}{r} 6 \overline{) 252} \\ - 120 \\ \hline 132 \\ - 120 \\ \hline 12 \end{array}$$

$20 \times 6 = 120$

$20 \times 6 = 120$

I subtract 120 and have 12 left to divide.

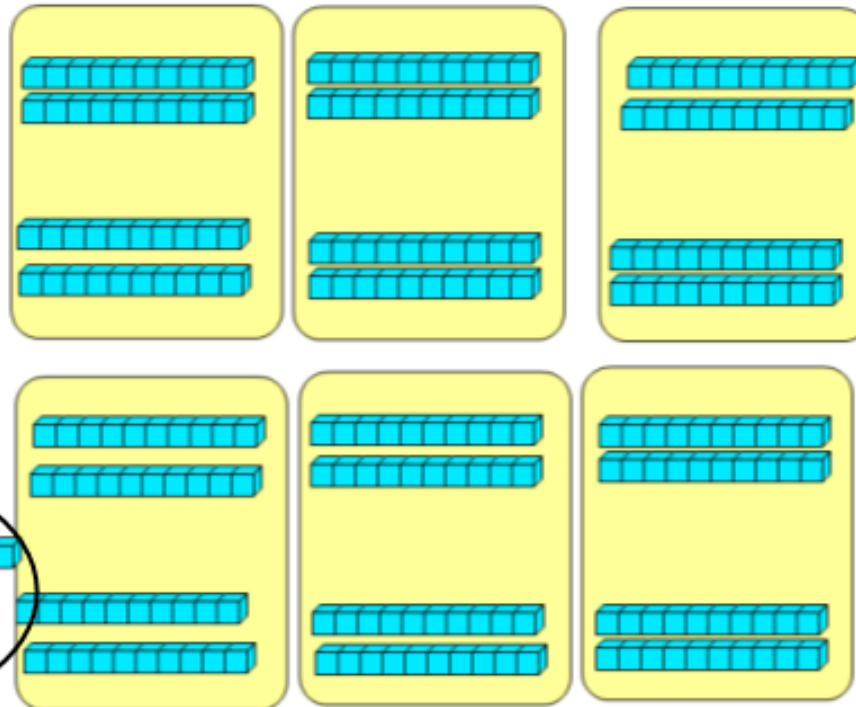
Effective strategy

(May get correct answer but will take longer)

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 =$$



I know that 1 ten is 10 ones.

6 groups

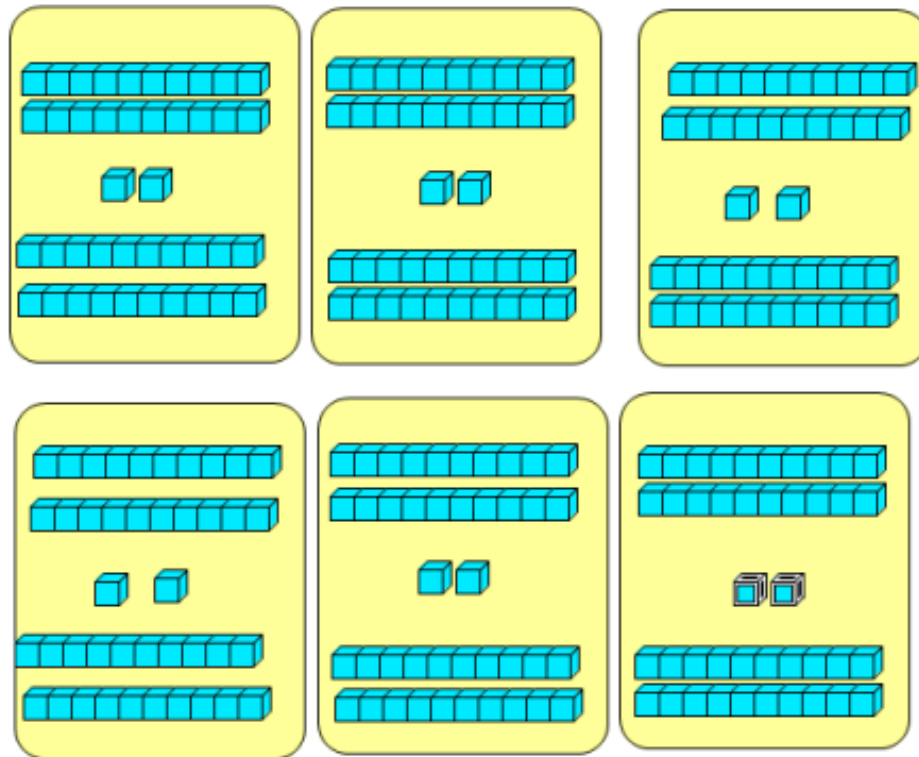
$$\begin{array}{r} 6 \overline{) 252} \\ \underline{- 120} 20 \times 6 \\ 132 \\ \underline{- 120} 20 \times 6 \\ 12 \end{array}$$

Effective strategy
(May get correct answer but will take longer)

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 =$$



Effective strategy
(May get correct answer but will take longer)

I subtract 12 (2×6) and
I have none left over to divide.

6 groups

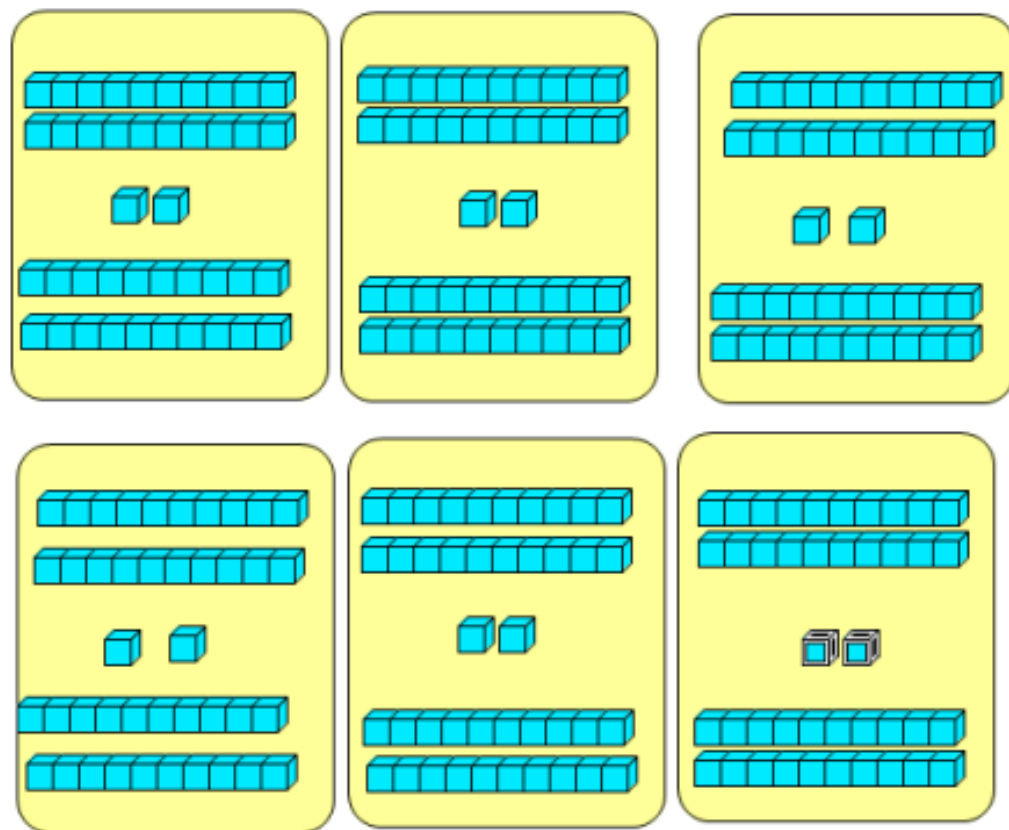
$$\begin{array}{r} 6 \overline{) 252} \\ \underline{- 120} 20 \times 6 \\ 132 \\ \underline{- 120} 20 \times 6 \\ 12 \\ \underline{- 12} 2 \times 6 \\ 0 \end{array}$$

I can put 2 more
in each group.

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 = 42$$



Effective strategy

(May get correct answer but will take longer)

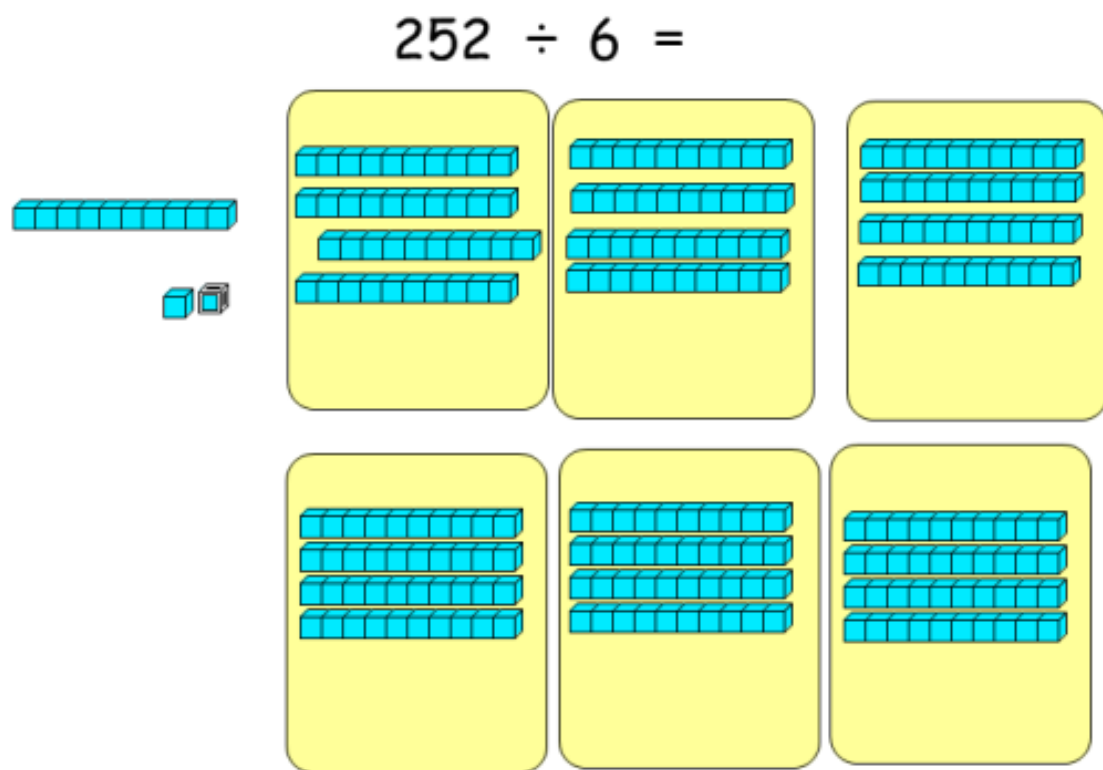
Handwritten long division of 252 by 6. The division is shown as $6 \overline{)252}$. The first step is $20 \times 6 = 120$, which is subtracted from 252 to get 132. The second step is $20 \times 6 = 120$, which is subtracted from 132 to get 12. The third step is $2 \times 6 = 12$, which is subtracted from 12 to get 0. The final quotient is 42. A red box highlights the multiplication facts 20×6 and 2×6 , with the text "6 groups" written above it. An arrow points to the final quotient 42.

I add up how many I put in each group.

I may have a lot to add and subtract. I may make a calculation error as a result.

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts



Efficient strategy
(faster and more accurate)

A more efficient way to divide is to look at the first two numbers of the dividend.

6 groups

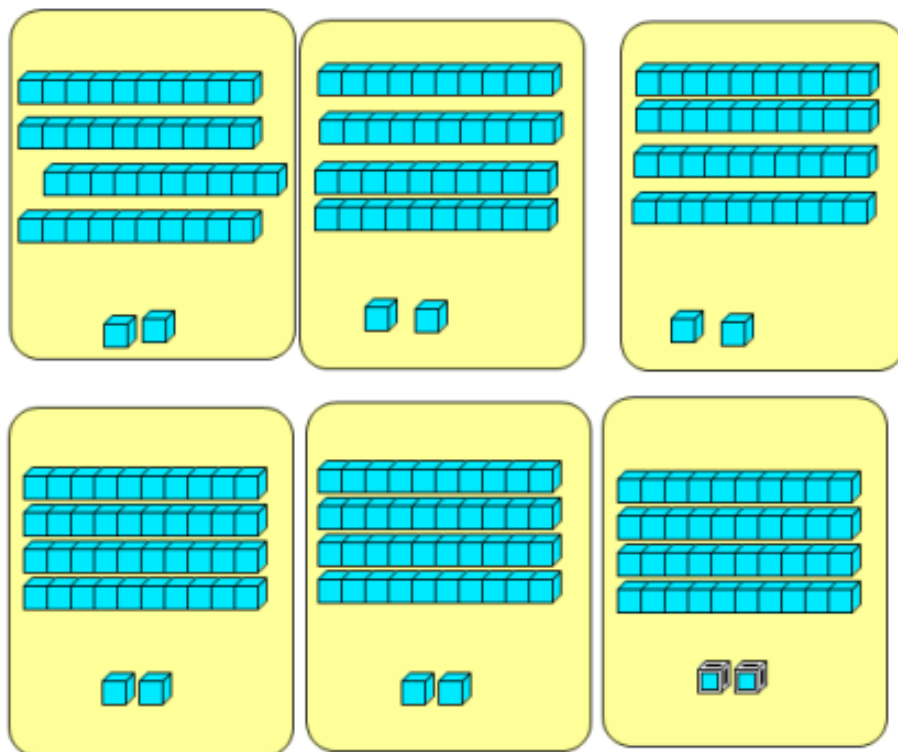
$$\begin{array}{r} 6 \overline{) 252} \\ \underline{- 240} \\ 12 \end{array} = 40 \times 6$$

Find a near product.
25 is close to 24
and $4 \times 6 = 24$
so $40 \times 6 = 240$

Learning Goal: Dividing larger numbers effectively versus efficiently

Strategy: Long division using known multiplication facts

$$252 \div 6 =$$



Efficient strategy
(faster and more accurate)

6 groups

$$\begin{array}{r} 6 \overline{) 252} \\ \underline{- 240} 12 \\ \underline{- 12} 0 \end{array}$$

$40 \times 6 = 240$
 $2 \times 6 = 12$
42

I have less to add and to subtract so I am less likely to make calculation errors.